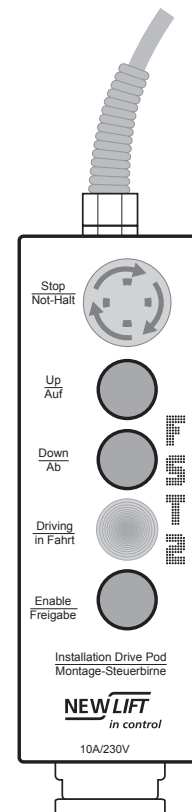




## installation drive pod

### MANUAL



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## Inhalt

<b>1</b>	<b>General</b>	<b>1</b>
1.1	Signs and symbols used	1
1.2	Further information	1
1.3	How to contact us	1
<b>2</b>	<b>General safety regulations</b>	<b>2</b>
2.1	Qualifications of the installing engineer	2
2.2	Residual dangers	2
2.3	Safety regulations	3
<b>3</b>	<b>Mounting control pod MSB</b>	<b>5</b>
3.1	Construction and function	5
3.2	Connecting the MSB	6
3.3	Using the MSB	7
3.4	Circuit Diagram	8

# 1 General

The Installation Drive Pod allows the unfinished car platform to be used for installation work, using dead-man drive controls without requiring a trailing cable, a car top-box or an inspection control pod.

## 1.1 Signs and symbols used

The following signs and symbols are used for operational instructions:

### **MSB**

Installation control pod



### **Safety-relevant information**

This symbol is located in front of safety-relevant information.



### **Information notice**

This symbol is located in front of relevant information.

## 1.2 Further information

The following documents, among others, are available for the FST-2 controller and its components:

- › FST-2 controller description
- › FST-2 manual
- › FST-2 short instructions
- › FST-2 GROUP manual
- › ADM manual
- › EAZ-256 manual
- › EAZ-LCD and EAZ-VFD manual
- › EAZ-TFT manual
- › LCS manual
- › SAM manual
- › Fire recall manual

These and other up to date manuals can be found in the download area of our website unter Service  
<http://www.newlift.de/service/download>

## 1.3 How to contact us

If, after referring to this manual, you still require assistance, our service line is there for you:

Phone +49 89 – 898 66 – 110  
E-mail [service@newlift.de](mailto:service@newlift.de)

Mon. - Thurs.: 08:00 a.m. – 12:00 p.m. and 1:00 p.m. – 5:00 p.m.  
Fr: 08:00 a.m. – 12:00 p.m. and 12:30 – 3:00 p.m.

## 2 General safety regulations

All important safety regulations are summarised in this chapter. These safety instructions must always be adhered to during all work on the installation.

All persons performing installation and commissioning work on the FST-2 controller must read this chapter and follow its regulations.

Laws, regulations, guidelines and standards that apply in the country of operation must be followed in addition to the safety regulations mentioned in this manual.

### 2.1 Qualifications of the installing engineer

The installing engineer must:

- › be over 18 years of age (exception: apprentices who are over 16 years of age and are permanently supervised by an engineer qualified for training apprentices).
- › have first aid training,
- › have theoretical and practical knowledge of regulations and measures for the prevention of fire and explosions in his work area,
- › be able to identify, avoid and rectify all dangers that might occur during his work in the shaft and in the operating rooms,
- › be able to identify and rectify all irregularities and faults that might occur during installation and operation of a lift system,
- › have theoretical and practical knowledge of operating principles and requirements of electric controls and drive systems.

All installation and commissioning work on electric and electronic components of the FST-2 controller must be performed by or supervised by a qualified electrician.

A qualified electrician has appropriate training and knowledge of regulations that allow him to judge the quality of the work performed and identify possible dangers (BGV A3).

### 2.2 Residual dangers

#### Danger for persons

The following shall always apply during all work on the installation:



*Danger to life! Do not touch live parts while working on electrical equipment.*

- › Before starting work, make sure the system is off circuit.
- › Only carry out any installation work on electrical components when these are switched off and in an unpowered state.
- › Only use insulated tools when working on electrical system components.



*Risk of injury when lifting or moving the control cabinet if it falls down or tips over.*

- › Only transport and lift the control cabinet with suitable equipment (lift truck, hoisting gear etc.).
- › All workers must be trained in using these aids and must observe all applicable special regulations to avoid accidents.



*Falling parts or parts protruding into the shaft. Risk of serious injury or death.*

- › Block the shaft access points.
- › Before beginning installation work, remove all foreign parts and assembly aids that are not required from the shaft.



*Electrical hazard, leaking gas or water due to pierced supply lines. Risk of serious injury or death.*

- › Make sure no supply lines are in the installation location before starting any installation work.



*Danger of falling! Installing engineers and unauthorised persons can fall down the shaft. Risk of serious injury or death.*

- › Block the shaft access points.
- › Use suitable protection (e.g. safety harnesses, scaffoldings) when working on or in the shaft.



*Danger of crushing due to intentional or accidental car movement. Risk of serious injury or death.*

- › Block the shaft access points.
- › Before starting any work, make sure that there are no persons in the shaft or in the vicinity of moving parts of the drive.
- › Prevent unauthorised operation of the controller.

#### **Risk of material damage**

The following shall always apply during all work on the installation:



*Electrostatic charging*

- › Keep the electronic assembly in its original packaging until installation.
- › Before opening the original packaging, a static discharge must be performed. To do this, touch a grounded piece of metal.
- › During work on electronic assemblies, periodically perform this discharge procedure.



*Electronic assemblies are destroyed by defective, interchanged or incorrectly mounted connectors, short-circuiting or excess voltage.*

- › Check plugs for mechanical damage.
- › Never change pre-assembled connectors or cables.
- › Only connect loose or torn off wires according to circuit diagram details if this is possible on site (suitable material and tools must be available).
- › Pay attention to coding pins and latch lugs.

## **2.3 Safety regulations**

### **General**

- › The instructions of the lift manufacturer and the instructions in this manual must be followed during installation and commissioning of the lift system.
- › The shaft must be secured against unauthorised trespassing during installation and commissioning.
- › Assemblies, devices and cables must be installed and fastened securely and permanently.
- › Loads must be moved with suitable aids (lift trucks, hoisting gear etc.).
- › Sharp and pointed tools or other potentially dangerous objects may only be carried along in clothing if suitable protective measures have been taken to rule out any danger.
- › Alcohol and drugs must not be consumed before and during installation and commissioning.

### **Electricity**

- › Regulations for installing and operating electrical equipment (VDE 0100) and regulations of local utilities must be followed.
- › The specified distances between different electrical assemblies must be controlled and maintained.
- › All installation work must be carried out with the system shut down and off circuit.
- › All cables and wires must be installed with sufficient strain relief.
- › The neutral and ground wires must be routed separately.
- › The control cabinet must be supplied with a clockwise rotary field.

### **Working in the shaft**

- › Any work in the shaft requires perfect and permanent communication between the supervisor on the FST-2 controller in the motor room and the workers in the shaft.
- › Components in the shaft must be arranged or secured in such a way that persons accessing the shaft for inspection, maintenance or repair purposes are not in danger.
- › The maximum load of the lift system must not be exceeded.
- › The specified overruns of the emergency end switches in relation to the speed must be observed.
- › The emergency installations must not be activated during normal operation.
- › All emergency installations and braking systems must be checked for troublefree operation and all shaft entrances closed off before beginning work.
- › Installation and operation are prohibited if other persons could be in danger.
- › Workers must be secured against falling.
- › In case of any work interruptions, the car must be moved to the lowest stop position, the controller switched off and the power supply (e.g. UPS) permanently disconnected.

### **Personal safety equipment of the installing engineer**

- › Eye protection
- › Safety boots
- › Protective helmet
- › Safety harness
- › Clothing suitable to the ambient conditions of the installation location
- › Jewellery, watches and similar items may not be worn; a hair net must be used if applicable.

## 3 Mounting control pod MSB

### 3.1 Construction and function

The Installation Drive Pod MSB is supplied with a 30m long trailing-cable, pre-wired with the FST connectors X2, X14, X18, X19, X31, and X32.

The Installation Drive Pod MSB has the following controls:

- › a large red mushroom button marked “Stop / Nothalt”
- › an audible alarm to warn when the mushroom button is not activated
- › a green drive button marked “Up / Auf”
- › a green drive button marked “Down / Ab”
- › an green enable button marked “Enable / Freigabe”
- › a yellow control lamp marked “Driving / In Fahrt”
- › a mains socket rated 10A/230V, IP54

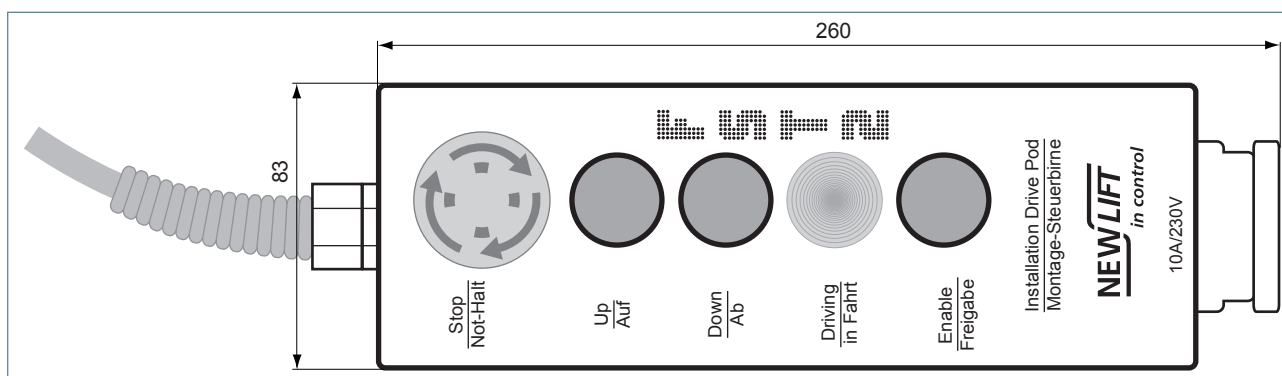


Fig. 3.1: Installation drive pod

The MSB allows the lift engineer to drive a platform lift in dead-man using dead-man controls, without requiring the lift's trailing-cable, car top-box or inspection control pod. All necessary safety circuit bridges to allow dead-man operation are handled by the MSB!

## 3.2 Connecting the MSB

Plug the connectors X2, X14, X18, X19 and X32 from the MSB trailing-cable into the respective sockets on the FST-2 and X31 into the terminal block in the control cabinet, as shown in Fig 3.2.

It is of utmost importance to ensure an appropriate strain relief when installing the mounting travelling cable in the shaft! The mounting travelling cable mustn't be



**Ensure that the MSB's trailing cable is adequately supported with strain relief mountings in the shaft. The trailing-cable must not, under any circumstances, be allowed to become trapped, squashed or damaged by the platform.**



**Isolate power completely to the installation before making any wiring changes to the Installation Drive Pod MSB.**

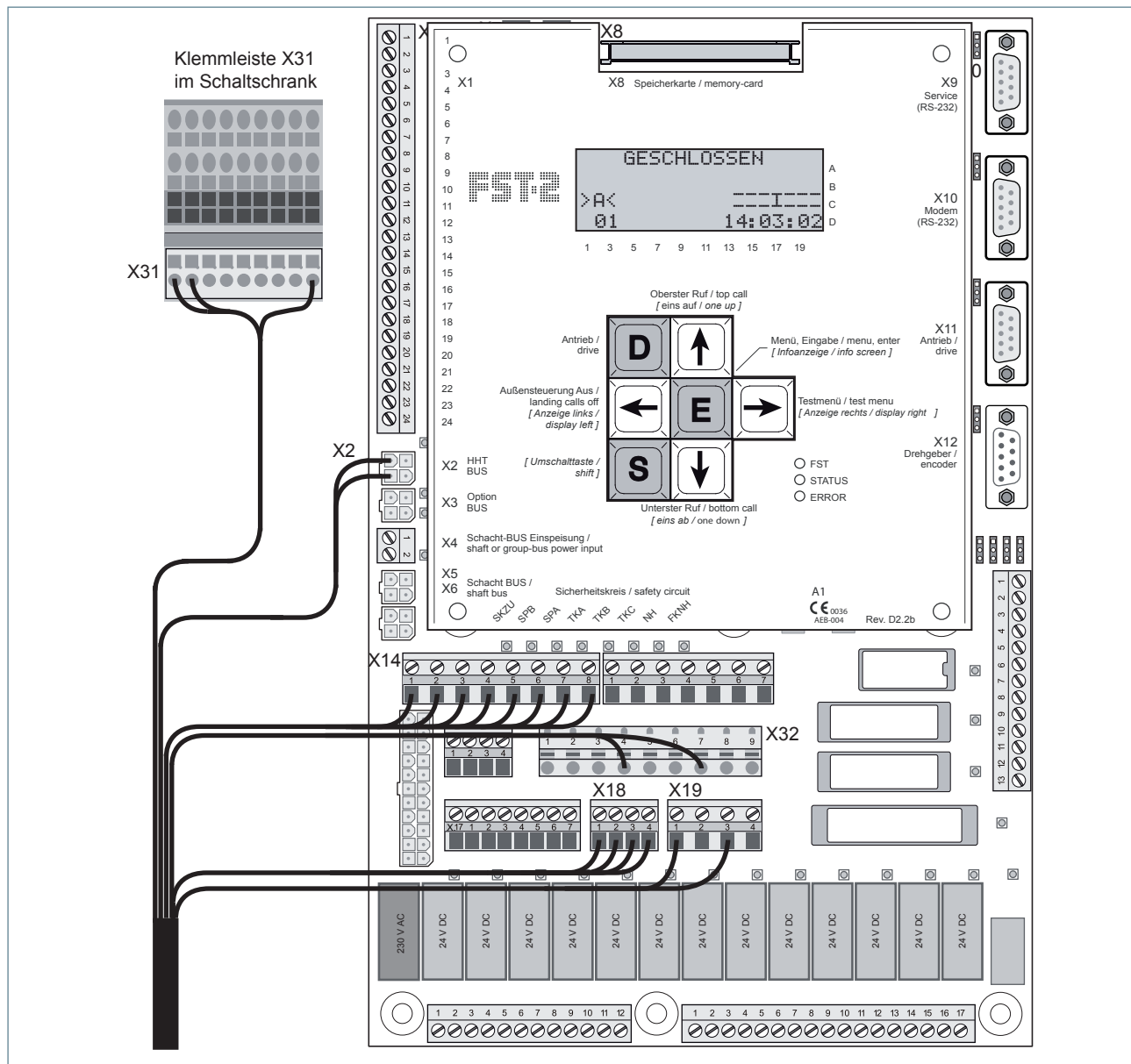


Fig. 3.2: connecting the MSB



### 3.3 Using the MSB



**The red “Stop” mushroom button opens the safety circuit and must be activated following every drive. The audible alarm will sound when the mushroom button is not activated.**

**If the mushroom button is not activated, the platform is not protected against uncontrolled movement due to an electrical or operating error.**

Before beginning every work shift, test the mushroom button to ensure faultless operation. The following tests are necessary:

- › After activating the “Stop” mushroom button, “EMERGENCY STOP” should be displayed in FST-2’s LCD Line-A.
- › After activating the “Stop” mushroom button, it should not be possible to drive the platform using the “Up” or “Down” buttons.
- › Activating the “Stop” mushroom button during a drive, should bring the platform to an immediate stop, without discernible controlled deceleration.
- › When the mushroom button is not activated, the audible alarm should sound



**If the audible alarm does is not heard, or any other function of the “Stop” mushroom button does not function exactly as described above, the Installation Drive Pod may not be used!**

#### Required conditions before making the first drive

- › the Installation Drive Pod MSB is connected electrically
- › the drive system is operating correctly
- › the FST-2 is operating in Installation Mode (CONFIGURATION / INSTALLATION / INSTALLATION MODE = ON)
- › the operation of the “Stop” mushroom button has been tested

#### Required conditions before every drive

- › make sure that no persons are present in the shaft that might be endangered by the driving of the platform!
- › test the functioning of the “Stop” mushroom button
- › before stepping onto the platform, make sure that the drive direction and drive speed are correct
  - » when driving upwards, the platform must drive in a upwards direction
  - » when driving downwards, the platform must drive in a downwards direction
  - » the drive speed of the platform must not exceed 0.6m/s in both directions!

#### Driving in an upwards or downwards direction

- › deactivate the “Stop” mushroom button by rotating clockwise
  - ↳ the audible alarm turns on
- › > press the “Up” or “Down” drive button together with the “Enable” button
  - ↳ the platform starts to move and the “Driving” control lamp illuminates
- › end the drive by releasing both buttons and activate the “Stop” mushroom button immediately.
  - ↳ the audible alarm turns off

### 3.4 Circuit Diagram

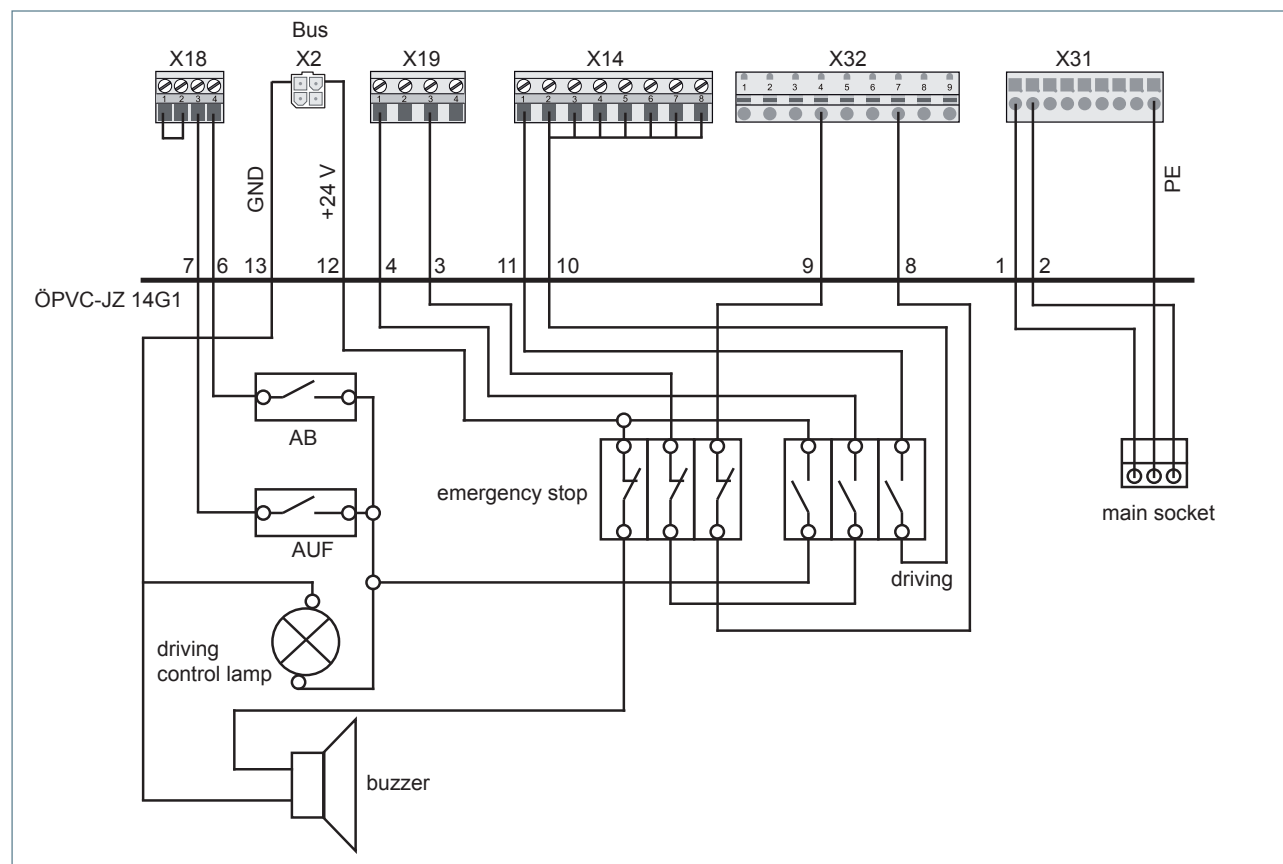


Abb. 3.3: MSB circuit diagramm



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